



3 1223 03565 0762

DEPARTMENT OF CITY PLANNING 450 MCALLISTER STREET - SAN FRANCISCO CALIFORNIA 94102

# NOTICE THAT AN

JOSUMENTS DEET.

CALL FRANCISCO

ENVIRONMENTAL IMPACT REPORT IS DETERMINED TO BE REQUIRED

Date of this Notice: August 9, 1985

Lead Agency: City and County of San Francisco, Department of City Planning
450 McAllister Street - 5th Floor, San Francisco, CA 94102

Agency Contact Person: Carol Roos Telephone: (415) 558-5261

Project Title: 84.403E:

535 Mission Street

Office Building

Project Sponsor: Bredero-Northern

Project Contact Person: William Hibbs

Project Address: 535 Mission Street, the south side of Mission Street between First and

Second Streets, at Shaw Alley

Second Streets, at Shaw Alley

Lots 68 and 83 in A

Lots 68 and 83 in Assessor's Block 3721

City and County: San Francisco

Project Description: Demolition of two buildings. Construction of a 36-story, 500-foot-tall building containing about 488,440 gross square feet, including 438,570 gross sq. ft. of office space, 7,470 sq. ft. of retail/restaurant area, and 35 parking spaces. Buildings to be demolished include 531 Mission Street and 535 Mission Street. Requiring building permits (Building Permit Application No. 08409150-S).

THIS PROJECT MAY HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT AND AN ENVIRONMENTAL IMPACT REPORT IS REQUIRED. This determination is based upon the criteria of the Guidelines of the State Secretary for Resources, Sections 15063 (Initial Study), 15064 (Determining Significant Effect), and 15065 (Mandatory Findings of Significance), and the following reasons, as documented in the Environmental Evaluation (Initial Study) for the project, which is attached.

Please see attached Initial Study

Deadline for Filing of an Appeal of this Determination to the City Planning Commission: August 19, 1985

An appeal requires: 1) a letter specifying the grounds for the appeal, and;

2) a \$35.00 filing fee.

REF 711.4097 F5862i

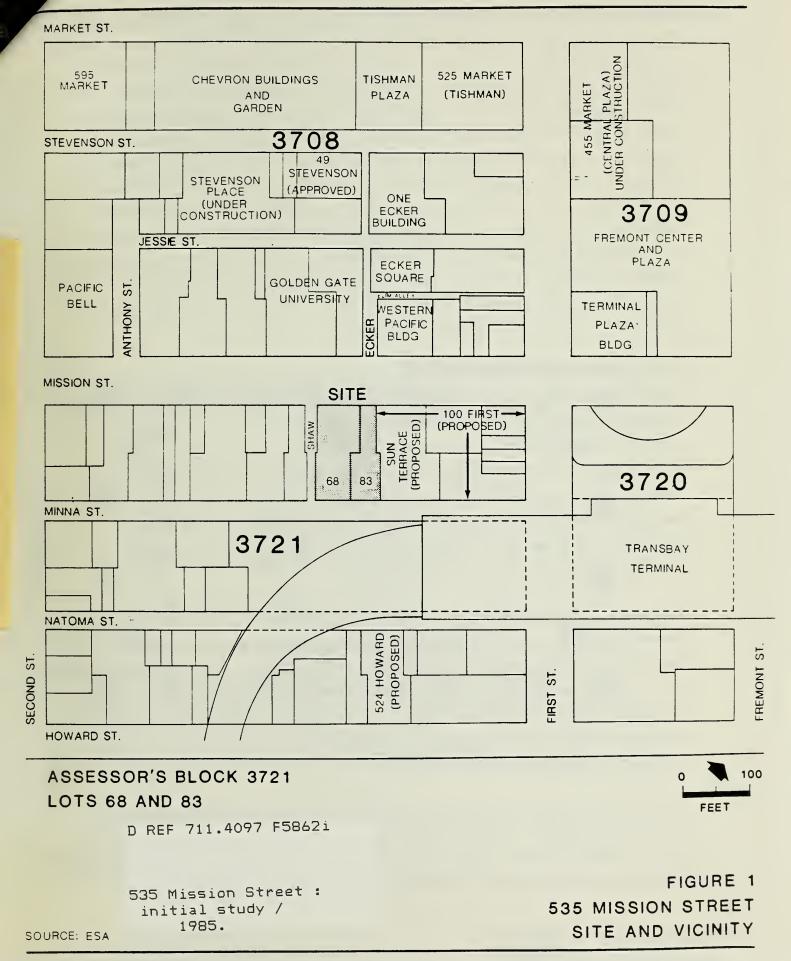
Barbara W. Sahm, Environmental Review Officer

## I. PROJECT DESCRIPTION

The project sponsor, Bredero-Northern, proposes to construct a 36-story, 460-ft.-tall, 488,440-gross-sq.-ft. office building on the south side of Mission St. between First and Second Sts. at Shaw Alley (see Figure 1, p. 2). The project architects are Heller & Leake and Kaplan/McLaughlin/Diaz. The 16,320-sq.-ft. site includes Lots 68 and 83 of Assessor's Block 3721. The site is in the C-3-O (Downtown Office) Use District, and within the 550-S Height and Bulk District as defined by the proposed amendments to the City Planning Code to implement the Downtown Plan (July 1, 1985). Under the Downtown Plan, the basic allowable Floor Area Ratio is 9:1. The 550-S Height and Bulk District allows an upper tower extension of 10% of building height. The "S" Bulk zone controls apply to four components of a new structure: base, lower tower, upper tower and upper tower extension. The general principle of the controls is decreased bulk with increased height. In the "S" zone, the maximum length and maximum diagonal dimensions of the lower tower are 160 ft. and 190 ft., respectively. For the upper tower the bulk controls are: a maximum length of 130 ft.; a maximum average floor size of 12,000 sq. ft.; a maximum floor size of 17,000 sq. ft.; and a maximum average diagonal measure of 160 ft. Allowable exceptions to these bulk maximums are provided in Sections 270 and 272, subject to approval under Section 309.

Under the Downtown Plan Permanent Controls, development greater than the basic 9:1 FAR, up to a maximum of 18:1 FAR, would be allowable through transfer of development rights (TDR) from sites with unused potential floor area in the same zoning district, that include architecturally significant buildings or where new parks or open space would be created. All unused area applicable to the FAR of the preservation site could be transferred to a development lot in the same C-3 zoning district, subject to setback, sunlight access, separation between towers and any other limitations pursuant to Section 309. TDRs could not be transferred to sites containing significant or contributory buildings, if development were to result in demolition or substantial alteration of these buildings. The FAR over the preservation and development lots would be less than, or equal to, 9:1. The project would incorporate 291,690 sq. ft. of TDRs from as yet unidentified sites. The FAR on the project (development) site would be about 26.9:1. As proposed, with this on-site FAR, the project could not be approved. To be allowable, the project must be reduced in size, the site itself must be enlarged, or the Planning Code must be changed.





Digitized by the Internet Archive in 2014

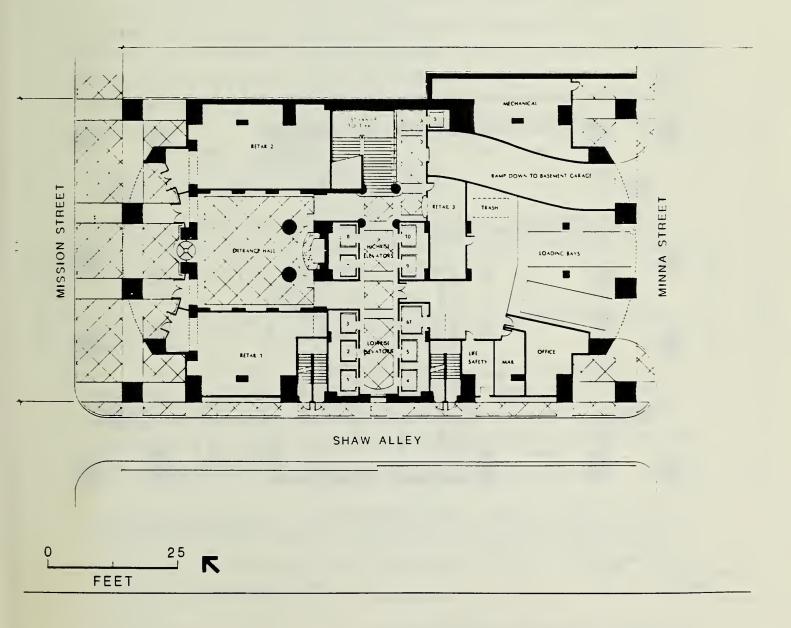
The site is occupied by two buildings: the three-story, 531 Mission St. building, occupied by three businesses (two business equipment sales firms and a consulting business); and the four-story, 535 Mission St. building on the west part of the site with two tenants (a toy store and a drapery business). The two buildings contain about 82,500 gross sq. ft. North across Mission St. from the site is Golden Gate University; to the east at the southeast corner of First and Mission Sts. is the Transbay Terminal. Adjacent to the site on the east, a 26-story building is proposed at 100 First St. (83.331E), which would replace six buildings. A seventh, a garage adjacent to the project site on the east, would be roofed and developed with a sun terrace pursuant to an agreement in principle between the sponsors of 100 First St. and the project. The sponsor's participation in development of this open space is intended by the sponsor to satisfy the project's open space requirement of about 8,800 sq. ft. The project would provide about 2,000 sq. ft. of open space on-site in the mezzanine sun terrace and the sponsor would contribute toward development of half (about 8,000 sq. ft.) of the larger sun terrace.

The proposed project would be about 500 ft. tall, 460 ft. up to two mechanical levels (the upper one consisting of twin towers) that would extend about 40 ft. higher. The building would contain about 438,570 sq. ft. of office space on floors two through 34, and about 7,470 sq. ft. of retail and restaurant space on the ground floor and mezzanine. A terrace of about 2,000 sq. ft. would connect to the larger, combined 100 First - 535 Mission sun terrace. There would be 35 parking spaces and four van loading spaces in a basement, and two truck loading docks on the ground floor. Two loading bays would be directly accessible from Minna St. and the basement parking and van loading level would be accessible by a ramp (adjacent to the loading bays).

The main building entrance would be on Mission St., defined by a double-height arcade. The entry would have a curved, glass wall; separate entrances would be provided to the lobby and the two retail spaces flanking the lobby (see Figure 2, p. 4). The lobby would be open to the mezzanine above. Past the lobby would be building elevators and a third retail space. The mezzanine (see Figure 3, p. 5) would be accessible from the lobby by stairways. The second-floor office level would be set back over the mezzanine-level terrace at the building's southeast corner.

The project tower's width (east-west) would be approximately one-half its depth (from Mission to Minna Sts.). The narrow (north/south) ends would be curved. Vertical ribbing on the curves is intended to emphasize the project's vertical aspect. The project would be stepped back on all sides at the upper third, and cylinder and mast forms would

#### PARKING GARAGE



SOURCE: HELLER & LEAKE and KAPLAN/McLAUGHLIN/DIAZ

FIGURE 2: 535 MISSION
GROUND FLOOR PLAN

FIGURE 3: 535 MISSION MEZZANINE FLOOR PLAN

complete the building at the skyline. The building base is intended to relate to the pedestrian scale of Mission St. in detail and arcade elements, and would be bisected on Mission St. to bring the vertical element to street level. (Figure 4, p. 7, is an elevation of the project.)

## II. SUMMARY OF POTENTIAL ENVIRONMENTAL EFFECTS

## A. EFFECTS FOUND TO BE POTENTIALLY SIGNIFICANT

The proposed project is examined in this Initial Study to identify potential effects on the environment. Some potential effects have been determined to be potentially significant, and require analysis in an environmental impact report (EIR). They include: the relationship of the proposed building to the Master Plan, relationship of the proposed building to and its effects on, land use in the project vicinity; visual quality; urban design; shadow and wind; employment and housing; transportation; traffic-generated air quality effects; construction noise; architectural and cultural resources; and possible growth inducement.

#### B. EFFECTS FOUND NOT TO BE SIGNIFICANT

The following potential impacts were determined either to be insignificant or to be mitigated through measures included in the project. These items require no further environmental analysis in the EIR:

Glare: The project would not be faced in any reflective materials (see the mitigation measure on p. 25).

Noise: After completion, building operation and project-related traffic would not perceptibly increase noise levels in the project vicinity. Operational noise would be regulated by the San Francisco Noise Ordinance, and the project would conform to the Noise Guidelines of the Master Plan.

Construction Air Quality: Construction of the project would have short-term effects on air quality in the project vicinity. A mitigation measure to reduce particulate and hydrocarbon emissions generated during construction activities to insignificant levels is included in the project (see p. 26).

<u>Utilities/Public Services:</u> The proposed project would increase demand for utilities and public services, but would not require additional personnel or equipment.

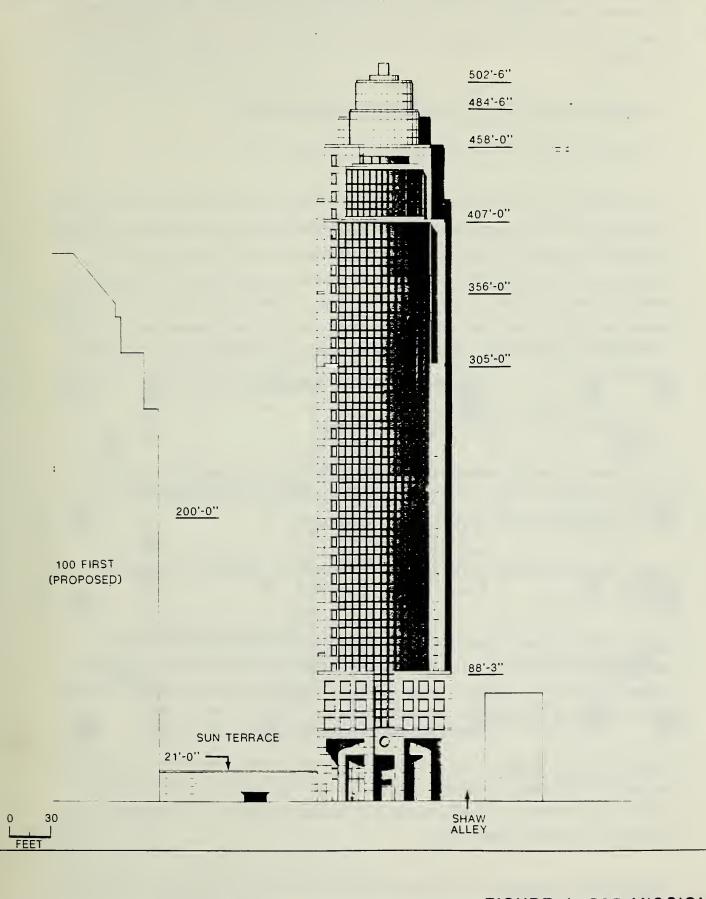


FIGURE 4: 535 MISSION MISSION STREET ELEVATION

<u>Biology</u>: The proposed project would not affect plants or animals, as the site is completely covered by buildings.

Geology/Topography: A preliminary geotechnical report has been prepared for the project and a final detailed geotechnical report would be prepared prior to commencement of construction by a California-licensed engineer. The project sponsor and contractor would follow recommendations made in the final report regarding any excavation and construction on the site. A measure to mitigate potential impacts associated with excavation and dewatering is included in the project (see pp. 26-27).

<u>Water</u>: The proposed project would use an average of about 24,540 gallons of water per day. The project would not affect drainage patterns or water quality because the site is entirely covered by impermeable surfaces. See also the mitigation measures discussed above regarding excavation and dewatering.

Energy: The project would be designed to surpass performance standards of Title 24 of the California Administrative Code. Its annual energy budget would be about 90,000 Btu per sq. ft. Peak electrical energy use would coincide with PG&E's systemwide peaks; peak natural gas use would not coincide with PG&E's systemwide peak. Energy consumption mitigation measures would be included as part of the project (see pp. 27-28).

<u>Hazards</u>: The project would neither cause health hazards, nor be affected by hazardous uses. Mitigation measures to reduce any conflicts with the City's Emergency Response Plan are included in the project (see p. 28).

# III. ENVIRONMENTAL EVALUATION CHECKLIST

Α.	COM	IPATIBILITY WITH EXISTING ZONING AND PLANS	N/A	Discussed
	1.	Discuss any variances, special authorization, or changes proposed to the City Planning Code or Zoning		
		Map, if applicable.		X
	*2.	Discuss any conflicts with the Comprehensive Plan of the City and County of San Francisco, if applicable.		X
	*3.	Discuss any conflicts with any other adopted		
		environmental plans and goals of the City or Region, if applicable.	X	_

The Downtown Plan, Proposal for Citizen Review (the Downtown Plan), August 1983, as amended in June, October and November 1984, contains changes in controls of the scale,

<sup>\*</sup> Derived from State EIR Guidelines, Appendix C, normally significant effect.

intensity, and location of growth in downtown San Francisco; architectural preservation; open space; sunlight access; wind criteria; and transportation.

The Final EIR for the Downtown Plan was certified October 18, 1984. On November 29, 1984, the City Planning Commission adopted the Downtown Plan and related amendments to the Master Plan, approved permanent controls and recommended that the Board of Supervisors amend the ordinances comprising the City Planning Code to implement the changes included in the Downtown Plan. Implementation of the Downtown Plan through amendment of the City Planning Code requires action by the Board of Supervisors and the Mayor. On November 29, 1984, the Planning Commission also adopted interim controls, to be in effect until November, 1985, or until the Board of Supervisors and the Mayor act on the proposed amendments to the Planning Code to implement the Downtown Plan, whichever is sooner.

The relationship of the project to the policies of the Master Plan, and provisions of the Planning Code, including the requirements of the Downtown Plan, will be discussed in the EIR for the project. Issues related to compatibility with zoning and these policies and provisions will be discussed in the EIR. The project would not conflict with other adopted environmental plans and goals.

Transfer of development rights may not be allowed during the period of interim controls. During this period, Conditional Use authorization would be required for demolition of the two buildings on the site, because they are more than 40 years old (Section 175.3 of the interim controls, November 29, 1984). Under the Planning Code Section 309, Permit Review in C-3 Districts, of the ordinances to implement the Downtown Plan, the project would require exception to bulk and loading access requirements.

## B. ENVIRONMENTAL EFFECTS. Could the project:

YES NO DISCUSSED

## 1. Land Use

\*a. Disrupt or divide the physical arrangement of an established community?

b. Have any substantial impact upon the existing character of the vicinity?

The project would be an intensification and expansion of existing office uses, and would replace the office-support type of uses on the site. The project's relationship to area land uses will be discussed in the EIR.

## 2. Visual Quality. Could the project:

\*a. Have a substantial, demonstrable negative aesthetic effect?

b. Substantially degrade or obstruct any scenic view or vista now observed from public areas?

c. Generate obtrusive light or glare substantially impacting other properties?

X X

X

The project's appearance and possible effects on views will be discussed in the EIR.

Reflective glass would not be used in the project; the building would not result in glare affecting other properties. See the mitigation measure on p. 25.

		YES	<u>NO</u>	DISCUSSED
3.	Population. Could the project:			
	<ul> <li>*a. Induce substantial growth or concentration of population?</li> <li>*b. Displace a large number of people (involving either housing or employment)?</li> <li>c. Create a substantial demand for additional housing in San Francisco, or substantially</li> </ul>	<u>x</u> <u>x</u>	_	<u>X</u> <u>X</u>
	reduce the housing supply?	<u>X</u>		<u>X</u>

The project would accommodate about 1,630 jobs (1,595 office-related, 21 retail, and 14 service and maintenance) a net increase of about 1,550 employees on the site. Existing tenants, with 77 employees, would be displaced from the site. The project's effect on employment, displacement and housing demand will be discussed in the EIR.

4.	Trans	sportation/Circulation. Could the project:	<u>Y1</u>	<u>es</u> <u>n</u>	10	DISCUSSED
	*a.	Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system?	X			X
	b.	Interfere with existing transportation systems, causing substantial alterations to circulation			-	X
	c.	Cause a substantial increase in transit demand which cannot be accommodated by existing or	X		_	X
	d.	Cause a substantial increase in parking demand which cannot be accommodated by existing parking facilities?	X	_	_	<u>X</u>
	c.	causing substantial alterations to circulation patterns or major traffic hazards? Cause a substantial increase in transit demand which cannot be accommodated by existing or proposed transit capacity? Cause a substantial increase in parking demand which cannot be accommodated by	<u>x</u> <u>x</u>		-	<u>X</u> <u>X</u> <u>X</u>

Increased employment at the site would increase demand on existing transportation systems. The number of pedestrians in the area would also increase. The project would not cause alterations to existing circulation patterns except during construction; its effects on circulation patterns during construction will be discussed in the EIR. Although transportation effects of the proposed project by itself would not be expected to be substantial, the cumulative effects of office development downtown could have a significant effect. Project-related and cumulative transportation impacts will be analyzed in the EIR. Relevant policies of the Transportation Element of the Master Plan will be discussed.

		YES	<u>NO</u>	DISCUSSED
5. Nois	e. Could the project:			
<b>*</b> a.	Increase substantially the ambient noise levels for adjoining areas?		X	X
b.	Violate Title 25 Noise Insulation Standards, if applicable?		X	X
с.	Be substantially impacted by existing noise levels?	_	<u>X</u>	X

#### Construction

Project construction would temporarily increase the ambient noise level. Construction noise will be addressed in the EIR.

## Project Operation

The noise environment of the site, like all of downtown San Francisco, is dominated by vehicular traffic noise. The Downtown Plan EIR indicates a day-night average noise level (Ldn) of 72 dBA on Mission St. adjacent to the site in 1984./1,2/ The Environmental Protection Element of the San Francisco Master Plan contains guidelines for determining the compatibility of various land uses with different noise environments. For office uses the guidelines recommend no special noise control measures in an exterior noise environment up to an Ldn of 70 dBA. For noise levels of 75 dBA and above, the guidelines recommend an analysis of noise reduction requirements and inclusion of noise insulation features in the building design. The project sponsor has indicated that noise insulation measures would be included as part of the design (see p. 25). The proposed structure would not include housing, so the State Title 25 Noise Standards would not be applicable.

Project operation would not result in perceptibly greater noise levels than those existing in the area. The amount of traffic generated by the project during any hour of the day,

and cumulative traffic increases at the time of project completion, would cause traffic noise levels to increase by one dBA or less. To produce a noticeable increase in environmental noise, a doubling of existing traffic volume would be required; traffic increases of this magnitude would not occur with anticipated cumulative development including the project./3/

The project would be required to comply with the San Francisco Noise Ordinance, San Francisco Police Code Section 2909, "Fixed Source Noise Levels," which regulates mechanical equipment noise. The project site and surrounding area are within a C-3-O district. In this district, the ordinance limits equipment noise levels at the property line to 70 dBA between 7 a.m. and 10 p.m. and 60 dBA between the hours of 10 p.m. and 7 a.m. During lulls in traffic, mechanical equipment generating 70 dBA could dominate the noise environment at the site. The project engineer and architect would include design features in the building to limit mechanical equipment noise levels to no more than 60 dBA. As equipment noise would be limited to 60 dBA to meet the nighttime limit, it would not be perceptible above the ambient noise levels in the project area. Discussion of operational noise will not be included in the EIR.

#### NOTES - Noise

/1/ San Francisco Department of City Planning, Downtown Plan Environmental Impact Report (EIR), EE81.3, certified October 18, 1984, Vol. 1, Table IV.J.2.

/2/ dBA is a measure of sound in units of decibels (dB). The "A" denotes the A-weighted scale, which simulates the response of the human ear to various frequencies of sound.

Ldn, the day-night average noise level, is a noise measurement based on human reaction to cumulative noise exposure over a 24-hour period, taking into account the greater annoyance of nighttime noises; noise between 10 p.m. and 7 a.m. is weighted 10 dBA higher than daytime noise.

/3/ See Downtown Plan EIR (Vol. 1) Continuous Section IV.E. generally and Section IV.J., pp. 1V.J.8-18. Increases of 1 dBA or less in environmental noise are not noticeable by most people outside a laboratory situation (National Academy of Sciences, Highway Research Board, Research Report No. 117 (1971)). See FHWA Highway Traffic Noise Prediction Model, Report #FHWA-RD-77-108, December 1978, p. 8, regarding doubling of traffic volumes producing increases of 3 dBA or more, which are noticed by most people.

YES NO DISCUSSED

6. Air Quality/Climate. Could the project:

\*a. Violate any ambient air quality standard or contribute substantially to an existing or projected air quality violation?

<u>X</u> <u>X</u>

- \*b. Expose sensitive receptors to substantial pollutant concentrations?

  c. Permeate its vicinity with objectionable odors?

  Alterwind moisture or temperature (including
  - c. Permeate its vicinity with objectionable odors?

    d. Alter wind, moisture or temperature (including sun shading effects), so as to substantially affect public areas, or change the climate either in the community or the region?

    X

Demolition, grading and other construction activities would temporarily affect local air quality for about 18 months, causing a temporary increase in particulate dust and other pollutants. Dust emissions during demolition and excavation would increase particulate concentrations near the site. Dustfall can be expected at times on surfaces within 200 to 800 ft. Under high winds exceeding 12 miles per hour, localized effects including human discomfort might occur downwind from blowing dust. Construction dust is composed primarily of large particles that settle out of the atmosphere more rapidly with increasing distance from the source. More of a nuisance than a hazard for most people, this dust could affect persons with respiratory diseases as well as sensitive electronics or communication equipment. The project sponsor would require the contractor to wet down the construction site twice a day during construction to reduce particulates by at least 50% (see p. 26).

Diesel-powered equipment would emit, in decreasing order by weight, nitrogen oxides, carbon monoxide, sulfur oxides, hydrocarbons, and particulates. This would increase local concentrations temporarily but would not be expected to increase the frequency of exceedances of air quality standards. The project sponsor would require the project contractor to maintain and operate construction equipment in such a way as to minimize exhaust emissions (see p. 26). Construction air quality effects require no further analysis.

Project-generated and cumulative development traffic emissions and their effects on local and regional air quality will be discussed in the EIR on the project.

Buildings on the project site are two and three stories. There are a number of publicly accessible open spaces in the project vicinity. For example, Golden Gate University, with terrace seating areas and an entry plaza, is north across Mission St. from the site. The Fremont Center plaza is northeast and across Mission and First Sts. from the site. Tishman Plaza is located at the north end of Ecker St. in the block north of the project block. The proposed building's effect on these open spaces and on the passenger unloading and open area in front of the Transbay Terminal (a portion of which is planned as public open space), and on sidewalks and structures near the project will be discussed in the EIR,

as well as shadows on the publicly accessible podium-level sun terrace proposed to be shared by the project and 100 First St. The analysis will include sun path and shadow diagrams.

7.

A wind tunnel analysis will be prepared for the project and the findings of the analysis will be discussed in the EIR.

		YES	NO I	DISCUSSED
<u>Utili</u>	ties/Public Services. Could the project:			
*a.	Breach published national, state or local standards relating to solid waste or litter control?		<u>X</u>	
*b•	Extend a sewer trunk line with capacity to serve new development?		X	<u>x</u>
C•	Substantially increase demand for schools, recreation or other public facilities?	_	<u>x</u>	X
d.	Require major expansion of power, water, or communications facilities?		<u>X</u>	<u>_x</u>

The proposed project would contribute to the cumulative demand for community services in the downtown. Impacts anticipated from cumulative downtown development have been analyzed in the Downtown Plan EIR and no significant impacts have been identified. The community service setting and impacts discussion in the Downtown Plan EIR (Vol. 1, IV.F.1-21; Vol. 2, pp. A.6-7 & K.1-13, Vol. 3, pp. C&R F.1-7), is summarized below and incorporated by reference herein.

The C-3 district produced about 78,000 tons of solid waste in 1984 (about 13% of the City's total non-recyclable solid waste). By the year 2000, the C-3 district is expected to produce about 95,000 tons of solid waste.

The City's (C-3 and non-C-3) solid waste is currently disposed of at the Altamont Hills landfill, pursuant to a five-year contract which expires November 1, 1988. The City is currently searching for additional landfill capacity to accommodate the City's solid waste generated in the years after 1988.

A sewer system is being built pursuant to the City's Clean Water Program. The system is intended to handle combined volumes of sewage and rainwater runoff. Since the capacity of the system is designed to handle rainwater flows (which can be 50 times the volume of regular sewage) additional development citywide would not affect operation of the sewer system.

About 23,000 (19%) of the City's 123,000 annually reported criminal incidents occur in the C-3 district. This number is expected to increase to approximately 24,500 by the year 2000. The percentage increase in C-3 district criminal incidents would be less than the percentage increase in new building area since 1) office space has a lower crime rate than light industrial and parking uses; 2) newer structures tend to have better security systems; and 3) greater population density tends to increase area security. Based upon these projections, an increased demand for approximately 26 Police Department personnel (about 1% of the existing force) is anticipated through the year 2000. The Police Department has no plans for future major capital expenditures (such as a new police station) nor would any be needed to meet the demands identified in the C-3 District.

About 7,600 (21%) of the City's 36,000 annual fire and non-fire incidents occur in the C-3 district. This number is expected to increase to approximately 7,800 by the year 2000. Based upon these projections, all Fire Department task units would continue to operate within their annual service limits through the year 2000. Two additional building inspectors would be required to maintain annual inspection of all downtown highrises.

The school system in the City is presently leasing many of its school sites for non-school uses. Based upon this extra capacity, additional downtown development would not significantly affect the school system.

Providers of utilities and public services have been contacted and have indicated that existing capacities are adequate to serve the proposed project. Statements from utility providers are available for public review at the Department of City Planning, Office of Environmental Review, 450 McAllister St. No further analysis is necessary in the EIR.

8.	Biolo	gy. Could the project:	YES	NO	DISCUSSED
	*a.	Substantially affect a rare or endangered			
	a.	species of animal or plant or the habitat			
		of the species?	_	<u>X</u>	_
	*b.	Substantially diminish habitat for fish, wild- life or plants, or interfere substantially with			
		the movement of any resident or migratory fish			
		or wildlife species?		X	<u>X</u>
	c.	Require removal of substantial numbers of			
		mature, scenic trees?		X	

The site is covered by impervious surfaces. The project would not affect plant or animal habitats. This topic will not be discussed in the EIR.

# 9. Geology/Topography. Could the project:

\*a. Expose people or structures to major geologic hazards (slides, subsidence, erosion and liquefaction)?

b. Change substantially the topography or any unique geologic or physical features of the site?

X

The project site is at 1 ft., San Francisco City Datum (SFD)./1/ Soils at the site are composed of a mixture of man-made fill and natural dune sand in the uppermost layers to natural deposits of dense to very dense sands, silts and clays at the lower layers. The upper 15 to 23 ft. of soil is primarily loose to medium-dense dune sand (to about -10 ft. SFD) and very dense sand (below the medium dense sand layer) which is underlain by 18 to 22 ft. of silts and clays mixed with varying amounts of sand. Below this latter layer are 35 ft. and more of very dense sands and clays with occasional dense silt. Below this level is sand mixed with varying amounts of silt and clay. Bedrock was not encountered; however, published geologic data indicate that bedrock is believed to exist at a depth of approximately 250 ft. below street grade./2/ Groundwater was encountered at about 13 ft. below sidewalk grade one day after test drilling./2/

Excavation for the project foundation and basement parking garage would be conducted to a depth of about -12 to -13 ft. SFD. This would be about the same depth as the existing basements on the site. A pile foundation is proposed.

Dewatering may be required during excavation, especially in the area of pile caps. Dewatering could cause some settlement of nearby buildings. The project includes measures to mitigate this potential impact (see pp. 26-27).

Pit walls would be shored up to prevent lateral movement during excavation. Adjacent structures might need to be underpinned, should excavation go below the base of their foundations, to avoid such damage as cracking of walls or foundations or sagging of floors. The building contractor must comply with the San Francisco Building Code and the Excavation Standards of the California Occupational Safety and Health Agency.

Loose man-made fill and sand are low-quality foundation supporting soils. To avoid building settlement and similar problems encountered when building on this type of soil, the project foundations would include use of precast concrete piles driven to dense sands

below the loose man-made fill and sand layers to support the structure. The vibration and noise effects of pile driving on adjacent uses will be addressed in the EIR on the project.

The closest active faults to San Francisco are the San Andreas Fault, about 9 miles southwest of Downtown, and the Hayward and Calaveras Faults, about 15 and 30 miles east of Downtown, respectively. The project area would experience Very Strong (Intensity Level C, masonry badly cracked with occasional collapse, frame buildings lurched when on weak underpinning with occasional collapse) groundshaking during a major earthquake./3/ The site is not within an area of liquefaction or subsidence. It is not within an area of potential tsunami or seiche flooding./4/

The project sponsor would follow the recommendations of structural and foundation reports to be prepared for the project for any excavation and construction on the site. The building must meet current seismic engineering standards of the San Francisco Building Code which include earthquake-resistant design and materials. The Code is designed to allow for some structural damage to buildings but not collapse during a major earthquake (see also the mitigation measures on p. 28 for the project's emergency response plan).

The project would replace two buildings on the site built prior to current seismic code standards, and therefore generally more susceptible to earthquake damage.

This topic requires no further discussion in the EIR.

#### NOTES - Geology/Topology

/1/ San Francisco City Datum establishes the City's "0" point for surveying purposes at approximtely 8.6 feet above mean sea level.

/2/ Harding Lawson Associates, August 30, 1984, <u>Preliminary Geotechnical Soils</u>
Investigation, 535 Mission Street Building, available for public review at the Department of City Planning, Office of Environmental Review, 450 McAllister St. A final report will be prepared for the project.

/3/ URS/John A. Blume and Associates, San Francisco Seismic Safety Investigation, 1974. Groundshaking intensities that would result from a major earthquake were projected and classified on a five-point scale ranging from E (Weak) through A (Very Violent).

/4/Ibid. Maximum flood elevations for earthquake-induced tsunamis have been estimated by the Department of Housing and Urban Development for the Federal Insurance Administration to be about elevation -3.5 ft. for a 100-year event and 0.5 ft. for a 500-year event (elevations from San Francisco Datum, 8.64 ft. above mean sea level), both of which would be below site grade.

## 10. Water. Could the project:

\*a. Substantially degrade water quality, or contaminate a public water supply?

\*b. Substantially degrade or deplete ground water resources, or interfere substantially with ground water recharge?

\*c. Cause substantial flooding, erosion or siltation?

X

As discussed above, excavation depth would approach the groundwater level, and dewatering may be required, especially in the area of pile caps. Dewatering could produce some localized subsidence, which could damage streets or older buildings in the immediate site vicinity. The sponsor has agreed to the measures on pp. 26-27 to mitigate effects of dewatering. No further analysis of this topic is required in the EIR.

			YES	<u>NO</u>	DISCUSSED
11.	Ener	gy/Natural Resources. Could the project:			
	*a.	Encourage activities which result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner? Have a substantial effect on the potential	_	<u>x</u>	<u>X</u>
		use, extraction, or depletion of a natural resource?		<u>X</u>	<u>x</u>

Annual electric energy consumption by existing uses on the site (retail, light manufacturing, storage) is about 270,000 kilowatt hours (kWh), equal to about 2.8 billion Btu at the source;/1,2/ natural gas use is negligible./1/

Removal of existing structures would require an unknown amount of energy. Fabrication and transportation of building materials, worker transportation, site development, and building construction would require about 750 billion Btu of gasoline, diesel fuel, natural gas and electricity./3/ Distributed over the estimated 50-year life of the project, this would be about 15 billion Btu per year, or about 35% of annual building energy requirements.

New buildings in San Francisco are required to conform to energy conservation standards specified by Title 24 of the California Administrative Code. Documentation showing compliance with these standards is submitted with the application for the building permit and is enforced by the Bureau of Building Inspection.

Table 1, p. 19, shows the estimated operational energy which would be used by the project. Project demand for electricity during PG&E's peak electrical load periods, July and August afternoons, would be about 1,350 kW, an estimated 0.008% of PG&E's peak load of about 16,000 MW./4/ Project demand for natural gas during PG&E's peak natural gas load periods, January mornings, would be 17 million Btu per day, or about 0.5% of PG&E's peak load of about 3.7 billion Btu per day./4/ Annual and peak daily electricity and natural gas consumption are shown in Figures 5 and 6, pp. 20-21. Measures to reduce energy consumption are included as part of the project (see pp. 27-28).

#### TABLE I: ESTIMATED PROJECT ENERGY USE/a/

## Daily Natural Gas Consumption/b/

Estimated natural gas consumption per sq. ft. Estimated peak daily natural gas consumption

20 Btu/c/ 170 therms

#### Monthly Electrical Consumption/b/

Estimated electrical consumption per sq. ft. Estimated total electrical consumption

0.7 kwh (7,165 Btu)/d/ 335,000 kWh (3.4 billion Btu)

#### Annual Consumption

Estimated total annual natural gas consumption Estimated total annual electrical consumption Connected kilowatt load

2,400 therms
4 million kWh (41 billion Btu)
4,750 kW
43.3 billion Btu (7,360 barrels of oil)

Estimated total annual energy consumption

/a/ Energy use includes space conditioning, service water heating and lighting in

accordance with allowable limits under Title 24. Estimated electricity includes an additional 4 kwh/sq. ft./yr., consumed by appliances such as typewriters, computers, coffeemakers, etc., than assumed by Title 24 estimates.

/b/ Electrical and natural gas consumption were calculated for the project by Glumac & Associates. These calculations are available for review at the Office of Environmental Review, 450 McAllister St.

/c/ Btu (British thermal unit): a standard unit for measuring heat. Technically, it is the quantity of heat required to raise the temperature of one pound of water one degree Fahrenheit (251.97 calories) at sea level.

/d/ Energy Conversion Factors:

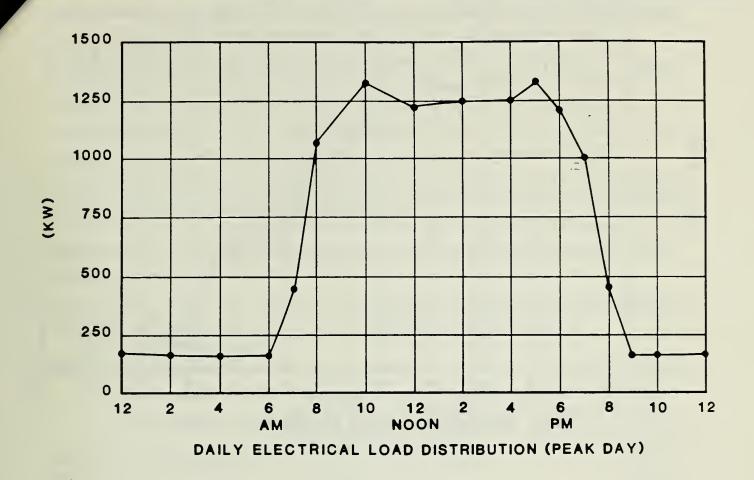
one gallon gasoline = 125,000 Btu one kilowatt hour (kWh) = 10,239 Btu

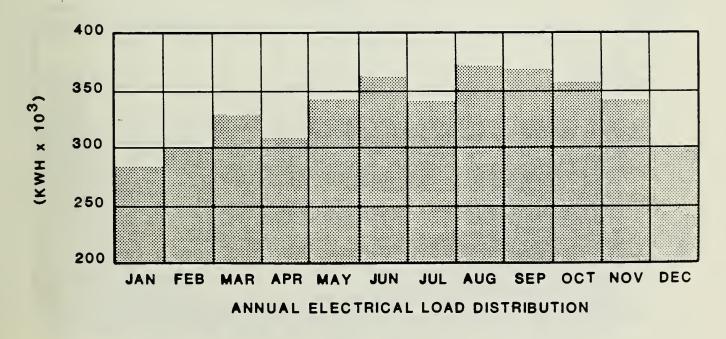
one therm = 100,000 Btu

one cubic foot of natural gas = 1,100 Btu at source

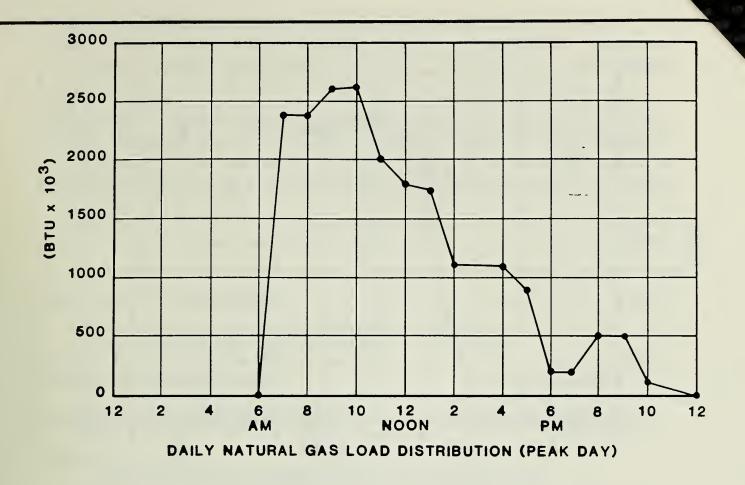
one barrel of oil = 5,600,000 Btu

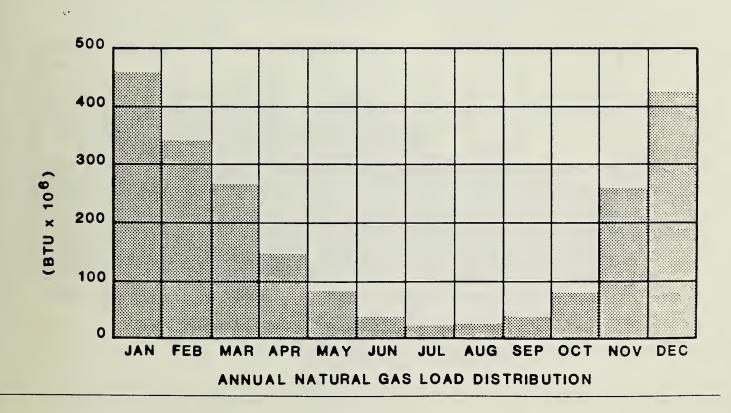
SOURCE: Glumac & Associates; ESA, Inc.; and Department of City Planning.





535 MISSION FIGURE 5
ELECTRICAL DISTRIBUTION CURVES





535 MISSION FIGURE 6
NATURAL GAS DISTRIBUTION CURVES

SOURCE: GLUMAC & ASSOCIATES INC.

Project-related transportation would cause additional, off-site energy consumption. Annual project-related trips (about 280,020 auto vehicle trip ends (vte), 719,000 bus person trip ends (pte), 27,530 train pte, 13,320 ferry pte, 37,300 jitney/van/taxi/motorcycle/charter bus pte, 332,100 BART pte, and 427,230 Muni electric pte) would require about 172,700 gallons of gasoline and diesel fuel and about 1.6 million kWh of electricity annually, as indicated in Table 2. The calculations for these figures are on file at the Department of City Planning, Office of Environmental Review, 450 McAllister St. These figures were calculated based on data contained in the Downtown Plan EIR. The total annual transportation energy demand, converted with at-source factors to a common thermal energy unit, would be about 40 billion Btu, the energy equivalent of 7,000 barrels of oil. This projected use is based upon the mix of highway vehicles in California in 1987. Vehicle fuel use is expected to decrease as the vehicle fleet becomes more efficient and fuel more expensive.

TABLE 2: PROJECT-RELATED ANNUAL TRANSPORTATION ENERGY CONSUMPTION/I/

	Electricity (kilowatt hours)	Gasoline (Millions of Gallons)	Diesel (Gallons)	Total Btu (Millions)
Auto/Taxi/Jitney/Motorcycle BART Muni Electric Regional Bus Systems SPRR	1.2 million 0.2 million	0.135	31,300 6,400	18,800 14,000 2,100 5,000 1,000
Project Total	1.6 million	0.135	37,700	40,900

<sup>/1/</sup> The methods used to calculate these figures are described in detail in the Downtown Plan EIR, EE81.3, certified October 18, 1984, Appendix N and the associated data is contained Table No. 6 of that document. Calculations are also based on vehicle miles traveled (see calculations for the project on file at the Department of City Planning, Office of Environmental Review, 450 McAllister St.).

SOURCE: Environmental Science Associates, Inc.

Projections of electrical use for growth that would occur under the Downtown Plan, as analyzed in the Downtown Plan EIR, indicate an increase of about 330-350 million kWh per year between 1984 and 2000, as a result of all new development occurring in the C-3 district. Natural gas consumption is expected to increase by 470 million cubic ft. (about five million therms) per year during the same time period, of which 210 cubic ft. (about two million therms) per year would be for office uses.

Increased San Francisco energy demands to the year 2000 would be met by PG&E from nuclear sources, oil and gas facilities, hydroelectric and geothermal facilities, and other sources, such as cogeneration, wind and imports. PG&E plans to continue receiving most of its natural gas from Canada and Texas under long-term contracts.

This topic, energy impacts, requires no further analysis and will not be discussed in the EIR.

Average water use is projected to be 24,450 gallons per day. This demand could be accommodated by existing supplies. This topic will not be discussed in the EIR.

#### NOTES - Energy

/1/ Existing energy use is based on PG&E customer billings for 1984; at-source thermal energy, given in British thermal units (Btu) is based on information received from PG&E, Technical Service Department, May 10, 1984.

/2/ The British thermal unit (Btu) is the quantity of heat required to raise the temperature of one pound of water one degree Fahrenheit at sea level; all references to Btu in this report are "at-source" values. The term "at-source" means that adjustments have been made in the calculation of the thermal energy equivalent (Btu) for losses in energy that occur during generation, transmission, and distribution of the various energy forms, as specified in: ERCDC, 1977, Energy Conservation Design Manual for New Non-Residential Buildings, Energy Conservation and Development Commission, Sacramento, California, and Apostolos, J.A., W.R. Shoemaker, and E.C. Shirley, 1978, Energy and Transportation Systems, California Department of Transportation, Sacramento, California, Project #20-7, Task 8.

/3/ Hannon, B., et al., 1978, "Energy and Labor in the Construction Sector," Science 202:837-847.

/4/ San Francisco Department of City Planning, Downtown Plan EIR (EE81.3), certified October 18, 1984, Vol. 1, pp. IV.G.3-4.

YES NO DISCUSSED

# 12. Hazards. Could the project:

- \*a. Create a potential public health hazard or involve the use, production or disposal of materials which pose a hazard to people or animal or plant populations in the area affected?
- \*b. Interfere with emergency response plans or emergency evacuation plans?
- c. Create a potentially substantial fire hazard?

The project would increase the daytime population in downtown San Francisco.

Employees in the proposed building would contribute to congestion if an emergency

7 1.4097 362i evacuation of the downtown area were required. An evacuation and emergency response plan would be developed as part of the proposed project (see p. 28). The project's emergency plan would be coordinated with the City's emergency planning activities. This mitigation measure is proposed as part of the project; thus this topic will not be discussed in the EIR.

The increased number of persons using the site would not substantially increase the fire hazard at the site as the project would conform to the Life Safety provisions of the San Francisco Building Code, and Title 24 of the State Building Code. The Fire Department has determined that no additional fire stations would be needed to serve cumulative development until the most major proposals came on line (such as Rincon Point/South Beach and Mission Bay (Edward Phipps, Assistant Chief, Support Services, Letter July 9, 1984.) Therefore, it is not anticipated that the project would create a substantial fire hazard and this issue will not be discussed in the EIR.

YES NO DISCUSSED 13. Cultural. Could the project: Disrupt or adversely affect a prehistoric or historic archaeological site or a property of historic or cultural significance to a community or ethnic or social group; or a paleontological site except as a part of a scientific study? \*b. Conflict with established recreational, educational, religious or scientific uses of the area? X Conflict with the preservation of buildings c. subject to the provisions of Article 10 or (pro-X X posed) Article 11 of the City Planning Code?

An archival research report prepared for the project indicates that cultural remains from development dating from 1850 to the present are could be encountered on the site. This topic will be discussed in the EIR on the project.

The two buildings on the site would be demolished for the project. The 535-539 Mission St. (Goodyear) building is rated "C" by the Foundation for San Francisco's Architectural Heritage in its Splendid Survivors survey of historical or architecturally significant buildings in Downtown San Francisco. The building is not rated by the Department of City Planning 1976 architectural survey. It is not designated as a contributory or significant building in the Downtown Plan. The building at 531 Mission St. is not rated by either the City or Heritage, nor is it designated as a significant or contributory building in the Downtown Plan.

EF 711.4097 75862i The Downtown Plan New Montgomery - Second Conservation District includes the buildings facing Second St. on the west face of the project block, about one-half block from the site. The project site is outside the boundaries of this district.

The project, in combination with other development proposed in the vicinity, would change the architectural setting. This topic will be discussed in the EIR on the project.

YES - NO DISCUSSED

#### C. OTHER

Require approval of permits from City Departments other than Department of City Planning or Bureau of Building Inspection, or from Regional, State or Federal Agencies?

YES NO N/A DISCUSSED

#### D. MITIGATION MEASURES

- If any significant effects have been identified, are there ways to mitigate them?
- 2. Are all mitigation measures identified above included in the project?

<u>x</u> \_ x

The following are mitigation measures related to topics determined to require no further analysis in the EIR. The EIR will contain a mitigation chapter describing these measures and also including other measures which would be, or could be, adopted to reduce potential adverse effects of the project as identified in the EIR.

# Visual Quality

In order to reduce obtrusive light or glare, the project sponsor would use no mirrored glass on the building.

## Noise

- As recommended by the Environmental Protection Element of the San Francisco
Master Plan, an analysis of noise reduction measurements would be prepared by the
project sponsor and recommended noise insulation features would be included as part
of the proposed building. For example, such design features would include fixed
windows and climate control.

### Construction Air Quality

The project sponsor would require the general contractor to sprinkle demolition sites with water continually during demolition activity; sprinkle unpaved construction areas with water at least twice per day to reduce dust generation by about 50%; cover stockpiles of soil, sand, and other such material; cover trucks hauling debris, soil, sand, or other such material; and sweep streets surrounding demolition and construction sites at least once per day to reduce TSP emissions. The project sponsor would require the general contractor to maintain and operate construction equipment so as to minimize exhaust emissions of TSP and other pollutants, by such means as a prohibition on idling motors when equipment is not in use or when trucks are waiting in queues, and implementation of specific maintenance programs (to reduce emissions) for equipment that would be in frequent use for much of a construction period.

## Geology/Topography

- A detailed foundation and structural design study would be conducted for the building by a California-licensed structural engineer and a geotechnical consultant. The project sponsor would follow the recommendations of these studies during the final design and construction of the project.
- If dewatering were necessary, any groundwater pumped from the site would be retained in a holding tank to allow suspended particles to settle, if this is found necessary by the Industrial Waste Division of the Department of Public Works, to reduce the amount of sediment entering the stormdrain/sewer lines.
- Should dewatering be necessary, the final soils report would address the potential settlement and subsidence impacts of this dewatering. Based upon this discussion, the soils report would contain a determination as to whether or not a lateral and settlement survey should be done to monitor any movement or settlement of surrounding buildings and adjacent streets. If a monitoring survey is recommended, the Department of Public Works would require that a Special Inspector (as defined in

Article 3 of the Building Code) be retained by the project sponsor to perform this monitoring. Groundwater observation wells would be installed to monitor the level of the water table and other instruments would be used to monitor potential settlement and subsidence. If, in the judgment of the Special Inspector, unacceptable subsidence were to occur during construction, groundwater recharge would be used to halt this settlement. Costs for the survey and any necessary repairs to service under the street would be borne by the contractor.

### Energy

#### Proposed as Part of the Project

- The project would be more energy-efficient than required by Title 24 of the California Administrative Code.
- A variable-air-volume air conditioning system would control the volume of conditioned air so that the building would maintain a comfortable temperature efficiently.
- Fluorescent lights with parabolic diffusers would be used to conserve energy and reduce glare. Return-air diffuser slots in light fixtures would reduce air conditioning loads by removing part of the heat generated by light fixtures. Whenever possible, office suites would be equipped with individualized light switches, and time clock operation to conserve electrical energy.
- Natural gas would be used for water heating.
- An airside economizer would be used for free cooling whenever the outside air is below building temperature.
- A water economizer cycle system using condenser water to generate chilled water would be installed, so that in hot weather the heat exchangers would cool the water without using excessive amount of electricity.
- The project would incorporate low-flow plumbing to conserve electric energy.
- A carbon monoxide monitoring system would control garage ventilation to avoid unnecessary operation of fans.

#### Other Measures

- The sponsor is considering performing a thorough energy audit of the structure's actual energy use after the first year of occupancy and implementing all cost effective alterations to the structure's energy system identified in the audit. Results of the audit would be available to the City. The decision whether to implement this measure would be made after completion of the building when energy use could be accurately measured and a determination of efficiency of energy consumption could be made. If it is determined that the dollar amount of energy savings that could be achieved through the alterations solar would cover the cost of installation, then this measure would be implemented by the sponsor.
- Active solar water heating is being considered for preheating of water. The decision as to whether to implement this measure would be made after completion of the building when energy use could be accurately measured based on a determination of savings from the measure. If it is determined that the dollar amount of energy savings that could be achieved through the use of active solar would cover the cost of installation, then this measure would be implemented by the sponsor.

#### Hazards

- An evacuation and emergency response plan would be developed by the project sponsor or building management staff, in consultation with the Mayor's Office of Emergency Services, to insure coordination between the City's emergency planning activities and the project's plan and to provide for building occupants in the event of an emergency. The project plan would be reviewed by the Office of Emergency Services and implemented by building management insofar as feasible before issuance by the Department of Public Works of final building permits.
- To expedite implementation of the City's emergency response plan, the project sponsor would prominently post information for building occupants concerning what to do in the event of a disaster.

#### E. MANDATORY FINDINGS OF SIGNIFICANCE

YES NO DISCUSSED

\*1. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or pre-history?

\*2. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?

\*3. Does the project have possible environmental effects which are individually limited, but cumulatively considerable? (Analyze in the light of past projects, other current projects, and probable future projects.)

\*4. Would the project cause substantial adverse effects on human beings, either directly or indirectly?

\*5. Is there a serious public controversy concerning the possible environmental effect of the project?

\_\_\_\_\_

<u>x</u> \_ <u>x</u>

<u>x</u> \_

The project would contribute to cumulative effects in the areas of transportation and air quality. These matters will be discussed in the EIR.

#### F. ON THE BASIS OF THIS INITIAL STUDY:

.

I find the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared by the Department of City Planning.

I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because the mitigation measures, numbers in the discussion, have been included as part of the proposed project. A NEGATIVE DECLARATION will be prepared.

X I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

Barbara W. Sahm

Environmental Review Officer

reliana W. X

for

Dean L. Macris
Director of Planning

Date: 8/6/85

#### STATE AGENCIES

Northwest Information Center California Archaeological Inventory Christian Gerike

#### REGIONAL AGENCIES

Association of Bay Area Governments

Bay Area Air Quality Management District Irwin Mussen

#### GROUPS AND INDIVIDUALS

AIA San Francisco Chapter

Bay Area Council

Bendix Environmental Research, Inc.

Tony Blaczek Finance Department Coldwell Banker

Michael V. Dyett Blayney-Dyett

Environmental Impact Planning Cathleen Galloway Brown

Environmental Planning & Research, Inc. Leslie de Boer

Friends of the Earth Connie Parrish

The Foundation for San Francisco's
Architectural Heritage
H. Grant Dehart
Executive Director

Gruen Gruen & Associates

Sue Hestor

Jefferson Associates, Inc. Gordon Jacoby

Barry Livingston Urban Center Development Limited

Bruce Marshall San Francisco Muni Coalition Planning Analysis & Development Gloria Root

San Francisco Chamber of Commerce Richard Morten

San Francisco Convention & Visitors Bureau George D. Kirkland Executive Director

San Francisco Ecology Center

San Francisco Labor Council Bernard Speckman

San Francisco Planning & Urban Research Association

San Francisco Forward Harriet B. Levy

San Francisco Tomorrow Tony Kilroy

Sierra Club Becky Evans

South of Market Alliance

South of Market Association EOC Office
L. Meyerzove, Chair

Tenants and Owners Development Corp.
John Elberling

Calvin Welch Council of Community Housing Organizations

### ADJACENT PROPERTY OWNERS

State of California

Mission Shaw Properties

KSW Properties

Delta Finance Co. Ltd.

Bank of America Trust

Golden Gate University

#### MEDIA

Annette M. Granucci Commercial News Publishing Co.

San Francisco Bay Guardian Patrick Douglas, City Editor

San Francisco Business Journal Kirstin E. Downey

San Francisco Chronicle Evelyn Hsu

San Francisco Examiner Gerald Adams

San Francisco Progress
E. Cahill Maloney

The Sun Reporter

Tenderloin Times
Rob Waters

#### LIBRARIES

Cogswell College Library

Document Library City Library - Civic Center Faith Van Liere

Environmental Protection Agency Library Jean Circiello

Stanford University Libraries

Jonsson Library of Government Documents
State and Local Documents Division

Government Publications Department San Francisco State University

Hastings College of the Law - Library

Institute of Government Studies UC Berkeley

#### PROJECT SPONSOR

Bredero-Northern William Hibbs Dale Moffett

#### PROJECT ARCHITECTS

Heller & Leake Jeffrey Heller

Kaplan/McLaughlin/Diaz Carl Hagelman

#### PROJECT ATTORNEY

Morrison & Foerster Zane Gresham